

of our species. In the ♀ and ♂ the epinotum is not armed with spines, and the club of the antennæ is five-jointed. Emery⁸³ gives for its distribution the mountains of the temperate zone of the Palearctic Region from the Alps to East Siberia; also in the Appenines and in Asia Minor and the Caucasus. It has never been found in the British Isles, but it is possible that it may have occurred here formerly, since Wheeler⁸⁴ suggests it was the original host of the small ant *Formicoxenus nitidulus*, and that the latter only later became associated with *Formica rufa*. *Formicoxenus* is widely distributed in Britain, and often abundant in *F. rufa* nests.

I am indebted to Mr. E. A. Elliot for the translation from the Danish, to Mr. Hugh Main for the photograph of the ergatandromorph of *M. scabrinodis*, and to Mr. Hereward Dollman for the drawings of the wing, and the antennæ. The drawings of the latter are intended more to emphasise the important points of the different species, than to represent an exact model of the antennæ. It must be remembered that from different points of view, the antennæ present quite different appearances. I also wish to express my thanks to the following gentlemen who have kindly given me specimens, or have sent me specimens to examine and name, or have supplied me with localities:—The Hon. N. C. Rothschild, the Revs. E. N. Bloomfield, G. R. Crawshay, J. E. Hull, W. F. Johnson, F. Morice, A. Thornley, and J. Waterston; Drs. M. Cameron, N. Joy, and G. W. Nicholson; Profs. T. H. Beare, J. W. Carr, C. Emery, and A. Forel; Messrs. T. W. Allen, E. A. Atmore, C. Bartlett, E. Bedwell, J. E. Black, H. Bolton, J. Bondroit, F. Bouskell, G. A. Brown, E. A. Butler, H. C. Champion, C. Crawley, H. J. Cuthbert, J. Edwards, E. G. Elliman, H. Willoughby Ellis, W. Evans, H. S. Fryer, C. Best Gardner, W. Gardner, G. T. Gimmingham, J. G. Gordon, J. N. Halbert, H. M. Hallett, A. H. Hamm, B. S. Harwood, F. V. Hodgson, E. A. Hudd, J. H. Keys, J. J. F. X. King, A. H. Martineau, E. Meyrick, R. S. Mitford, C.B., C. Morley, C. H. Rudge, H. Scott, W. E. Sharp, T. Stainforth, J. Taylor, S. O. Taylor, F. V. Theobald and M. Webb.

ERRATA.—p. 1, line 2, for "*Formica rufa*, L.," read *Formica rubra*, L.

Appendix.—First List of Aphides found with *Myrmica*.

By FRED. V. THEOBALD, M.A., F.E.S.

APHIDES FOUND WITH THE GENUS MYRMICA.

1. ***Trama troglodytes***, Heyden.
 = *Trama radiceis*, Kaltenbach.
 = *Trama pubescens*, Koch.
 = *Trama radiceis*, Koch.
 = *Lachnus longitarsis*, Ferrari.
 = *Rhizobius helianthemii*, Westwood.
 = *Aphis radiceis*, Goureau.

REFERENCES:—

- Heyden, Mus. Senk., ii., p. 293 (1837).
 Kaltenbach, Mono. Pflanz., p. 211 (1843).

⁸³ *Deutsch. Ent. Zeitschr.*, 1908, p. 167.

⁸⁴ *Ants*, 1910, p. 434.

- Koch, Die Pflanz. Aphid., pp. 307, 308; figs. 375 and 377 (1857).
 Westwood, Proc. Ent. Soc. Ann. Nat. Hist., xiv., p. 453.
 Walker, List Homop., iv., p. 1061 (1852).
 Ferrari, Aph. Liguriæ. Ann. d. Mus. Civ. d. Stor. Nat. d. Genova, ii.,
 p. 80 (1872).
 Ferrari, Spec. Aphid., p. 233 (1872).
 Buckton, Mono. Brit. Aph., iii., p. 68., Pl. cii., figs. 5-7 (1880).
 Del Guercio, Bull. Soc. Ent. Ital., xxx., p. 187 (1898).
 Schouteden, Mém. Soc. Ent. Belg., xii., pp. 208 and 209 (1906).
 Donisthorpe, Ent. Rec., p. 6 (1907).

LOCALITIES :—

Bradgate Park, Leicestershire, May 3rd, 1909, with *Myrmica scabrinodis*, Nyl. (*Donisthorpe*) one ♀. Buckton (p. 70) records it with *Myrmica rubra* and *Formica fuliginosa*.

2. *Forda formicaria*, Heyden.

= *Rhizoterus vacca*, Hartig.

REFERENCES :—

- Heyden, Mus. Senk., ii., 291 (1837).
 Hartig, Germ. Ent. Zeit., iii., p. 363 (1841).
 Kaltenbach, Mono. Pflanz., p. 209 (1843).
 Amyot, Ann. Soc. Ent. Fr., 2nd. Ser., v., pp. 486-541 (1843).
 Koch, Die Pflanz. Aphid., p. 309, figs. 378, 379 (1843).
 Walker, List. Homop., iv., p. 1060 (1852).
 Buckton, Mono. Brit. Aph., iv., p. 85, pl. cxxvi (1882).
 Donisthorpe, Ent. Rec., p. 39 (1902), p. 7 (1906).

LOCALITIES :—

Box Hill, Surrey, May 14th, 1911; Hartlepool, Durham, October 10th, 1910; Isle of Eigg, Hebrides, November 17th, 1911; Loch Aber, near Dumfries, April 31st, 1908, all with *Myrmica ruginodis*, Nyl. (*Donisthorpe*). Wye, Kent, May 17th, 1912, Blackheath Vale, Kent, November 20th, 1905 (*Theobald*); Bradgate Park, Leicestershire, May 3rd, 1909, Whitsand Bay, Cornwall, April, 1909, with *Myrmica scabrinodis*, Nyl. (*Donisthorpe*). Balrath, County Meath, September, 1910, with *M. laevinodis*, Nyl. (*Donisthorpe*).

The specimens from Blackheath Vale were on artichoke roots with the ants around them.

3. *Forda viridana*, Buckton.

REFERENCES :—

- Buckton, Mon. Brit. Aph., IV., p. 85, Pl. cxxvii., figs. 1-2 (1882).
 In nest of *M. scabrinodis*, West Allendale, 1,000ft. (*Hull*).

4. *Tycheoides setariæ*, Passerini. Schouteden.

= *Tychea setariæ*, Passerini.

= *Geoica setariæ*, Forbes.

REFERENCES :—

- Passerini, Gli Afidi., p. 59 (1860).
 Buckton, Mono. Brit. Aph., IV., p. 88, Pl. cxxviii., figs. 1-4 (1882).
 Hart in Forbes, 18th Rep. St. Ent. Ill., p. 101 (1894).
 Schouteden, Mém. Soc. Ent. Belg., xii., p. 194 (1906).
 Donisthorpe, Ent. Rec., xix., p. 6 (1907).

LOCALITY :—

Loch Aber, near Dumfries, April 31st, 1908 (*Donisthorpe*), two ♀ ♀ with *Myrmica ruginodis*, Nyl.

5. **Pentaphis trivialis**, Passerini. Del Guercio.
= *Tychea trivialis*, Passerini.

REFERENCES :

- Passerini, Aphid. Ital., p. 82 (1863).
Buckton, Mono. Brit. Aph., IV., p. 86, pl. cxxvii., figs. 3 and 4 (1882).
Schouteden, Mém. Soc. Ent. Belg., xii., p. 193 (1906).
Del Guercio, Revistadi Patol. Vegetal., iii., p. 332 (1909).

LOCALITY :—

Sandown, Isle of Wight, August, 1908, with *Myrmica lærinodis*, Nyl. (*Donisthorpe*).

6. **Brysocrypta lactucarius**, Passerini.
= *Pemphigus lactucarius*, Passerini.
= *Amycla fuscicornis*, Koch.

REFERENCES :—

- Passerini, Gli Insetti au. delle galle d. Terebinto d. Lentisco, I., Giardini, iii., p. 260, and Aphid. Ital., p. 77, n. 13 (1863).
Koch, Die Pflanz. Aphid., p. 303, figs. 371 and 372 (1854).
Ferrari, Aphid. Liguriæ, p. 236 (1872).
Buckton, Mono. Brit. Aph., iii., p. 124, pl. cxii., figs. 7-13 (1880).
Schouteden, Mém. Soc. Ent. Belg., xii., p. 199 (1906).

LOCALITIES :—

Bradgate Park, Leicestershire, May 3rd, 1909. Two apterous ♀♀ (*Donisthorpe*) with *Myrmica ruginodis*, Nyl.

7. **Brysocrypta ranunculi**, Kaltenbach.
= *Pemphigus ranunculi*, Kaltenbach.

REFERENCES :—

- Kaltenbach, Mono. Pflanz., p. 185 (1843).
Walker, List Homop., iv., p. 1003 (1852).
Schouteden, Mém. Soc. Ent. Belg., xii., p. 200 (1906).

LOCALITIES :—

Bradgate Park, Leicestershire, May 3rd, 1909, with *Myrmica ruginodis*, Nyl. (*Donisthorpe*) one apterous ♀.

8. **Aphis plantaginis**, Schrank.
= *Aphis dauci-carotæ (dauci)*, Fabricius?

REFERENCES :—

- Schrank, Fn. Boica., ii., p. 106, n. 1185 (1801).
Kaltenbach, Mono. Pflanz., p. 59 (1843).
Amyot, Ann. Soc. Ent. Fr., 2nd Sc., v., p. 478 (1843).
Walker, List Homop., iv., p. 1001 (1852).
Koch, Die Pflanz. Aphid., p. 102, figs. 137-138 (1857).
Passerini, Aphid. Ital., p. 31 and 40, n. 17 (1863).
Ferrari, Aphid. Liguriæ, p. 66 (1872).
Donisthorpe, Ent. Rec., xix., p. 6 (1907).
Bonnet, Hist. Nat., i., p. 56 (1779)?
Gmelin, Ed. Syst. Nat., i., 2209-63 (1788)?

LOCALITIES :—

Bradgate Park, Leicestershire, May 2nd, 1909. One apterous ♀ (*Donisthorpe*) with *Myrmica ruginodis*, Nyl.

UNIDENTIFIED SPECIES.—

Three species not yet identified, one from *M. ruginodis* nests at Loch Aber, near Dumfries and the same from Bradgate Park, Leicestershire, with *M. scabrinodis* (*Donisthorpe*). Another species